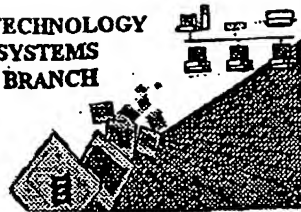




BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/776,521
Source: FFWO
Date Processed by STIC: 11-23-04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 06/05/04):
U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Mail Stop Sequence, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA 22202

Revised 05/17/04

Best Available Copy

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER: 107761521

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 Invalid Line Length The rules require that a line not exceed 72 characters in length. This includes white spaces.
- 3 Misaligned Amino
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
- 4 Non-ASCII The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 Variable Length Sequence(s) _____ contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 PatentIn 2.0
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
- 7 Skipped Sequences
(OLD RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO X (insert SEQ ID NO where "X" is shown)
(i) SEQUENCE CHARACTERISTICS (Do not insert any subheadings under this heading.)
(xi) SEQUENCE DESCRIPTION: SEQ ID NO X (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES" response to include the skipped sequences.
- 8 Skipped Sequences
(NEW RULES) Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
<210> sequence id number
<400> sequence id number
000
- 9 Use of n's or Xaa
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 Invalid <213>
Response Per 1.823 of Sequence Rules, the only valid <213> responses are Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence.
- 11 Use of <220> Sequence(s) _____ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 PatentIn 2.0
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 Misuse of n/Xaa "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid.



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/776,521

DATE: 11/23/2004

TIME: 12:44:41

Input Set : D:\SEQLIST (8449-405 as filed).TXT

Output Set: N:\CRF4\11222004\J776521.raw

4 <110> APPLICANT: Fletcher, Jessica
 5 Prince-Cohane, Kenya
 6 Mehta, Sunil
 7 Slusarewicz, Paul
 8 Andjelic, Sofija
 9 Barber, Brian
 11 <120> TITLE OF INVENTION: HEAT SHOCK PROTEIN-BASED VACCINES AND
 12 IMMUNOTHERAPIES
 14 <130> FILE REFERENCE: 8449-405-999
 16 <140> CURRENT APPLICATION NUMBER: 10/776,521
 17 <141> CURRENT FILING DATE: 2004-02-12
 19 <150> PRIOR APPLICATION NUMBER: 60/503,417
 20 <151> PRIOR FILING DATE: 2003-09-16
 22 <150> PRIOR APPLICATION NUMBER: 60/463,746
 23 <151> PRIOR FILING DATE: 2003-04-18
 25 <150> PRIOR APPLICATION NUMBER: 60/462,469
 26 <151> PRIOR FILING DATE: 2003-04-11
 28 <150> PRIOR APPLICATION NUMBER: 60/447,142
 29 <151> PRIOR FILING DATE: 2003-02-13
 31 <160> NUMBER OF SEQ ID NOS: 419
 33 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 35 <210> SEQ ID NO: 1
 36 <211> LENGTH: 4
 37 <212> TYPE: PRT
 38 <213> ORGANISM: Malaria
 40 <400> SEQUENCE: 1
 41 Asn Ala Asn Pro
 42 1
 45 <210> SEQ ID NO: 2
 46 <211> LENGTH: 9
 47 <212> TYPE: PRT
 48 <213> ORGANISM: Unknown
 50 <220> FEATURE:
 51 <223> OTHER INFORMATION: HLA-A2 peptide binding motif
 W--> 53 <221> NAME/KEY: VARIANT
 54 <222> LOCATION: 2
 55 <223> OTHER INFORMATION: Xaa = Leu or Met
 W--> 57 <221> VARIANT
 58 <222> LOCATION: 6
 59 <223> OTHER INFORMATION: Xaa = Val or Ile or Leu or Thr
 W--> 61 <221> VARIANT
 62 <222> LOCATION: 9
 63 <223> OTHER INFORMATION: Xaa = Val or Leu

(ps.6)
 Does Not Comply
 Corrected Diskette Needed

(ps.2,45)

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/776,521

DATE: 11/23/2004
TIME: 12:44:41

Input Set : D:\SEQLIST (8449-405 as filed).TXT
Output Set: N:\CRF4\11222004\J776521.raw

```
--> 65 <221> VARIANT
66 <222> LOCATION: 1,3 , 4, 5, 7, 8
67 <223> OTHER INFORMATION: Xaa = any amino acid
--> 69 <400> 2
--> 70 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
71 1 5
74 <210> SEQ ID NO: 3
75 <211> LENGTH: 9
76 <212> TYPE: PRT
77 <213> ORGANISM: Unknown
79 <220> FEATURE:
80 <223> OTHER INFORMATION: HLA-A2 peptide binding motif
--> 82 <221> NAME/KEY: VARIANT
83 <222> LOCATION: 2
84 <223> OTHER INFORMATION: Xaa = Leu or Met
--> 86 <221> VARIANT
87 <222> LOCATION: 1, 3, 4, 5, 6, 7, 8
88 <223> OTHER INFORMATION: Xaa = any amino acid
--> 90 <400> 3
--> 91 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val
92 1 5
95 <210> SEQ ID NO: 4
96 <211> LENGTH: 8
97 <212> TYPE: PRT
98 <213> ORGANISM: Unknown
100 <220> FEATURE:
101 <223> OTHER INFORMATION: HLA-A2 peptide binding motif
--> 103 <221> NAME/KEY: VARIANT
104 <222> LOCATION: 2
105 <223> OTHER INFORMATION: Xaa = Val or Gln
--> 107 <221> VARIANT
108 <222> LOCATION: 1, 3, 4, 5, 6, 7, 8
109 <223> OTHER INFORMATION: Xaa = any amino acid
--> 111 <400> 4
--> 112 Xaa Xaa Xaa Xaa Xaa Xaa Leu
113 1 5
116 <210> SEQ ID NO: 5
117 <211> LENGTH: 5
118 <212> TYPE: PRT
119 <213> ORGANISM: Unknown
121 <220> FEATURE:
122 <223> OTHER INFORMATION: HLA-DR peptide binding motif
124 <400> SEQUENCE: 5
125 Gln Lys Arg Ala Ala
126 1 5
129 <210> SEQ ID NO: 6
130 <211> LENGTH: 5
131 <212> TYPE: PRT
132 <213> ORGANISM: Unknown
```

There is no "Xaa" at
this location.
Pls see item
9 on error
summary
sheet.

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

RAW SEQUENCE LISTING DATE: 11/23/2004
 PATENT APPLICATION: US/10/776,521 TIME: 12:44:41

Input Set : D:\SEQLIST (8449-405 as filed).TXT
 Output Set: N:\CRF4\11222004\J776521.raw

```

134 <220> FEATURE:
135 <223> OTHER INFORMATION: HLA-DR peptide binding motif
137 <400> SEQUENCE: 6
138 Arg Arg Arg Ala Ala
139 1 5
142 <210> SEQ ID NO: 7
143 <211> LENGTH: 7
144 <212> TYPE: PRT
145 <213> ORGANISM: Unknown
147 <220> FEATURE:
148 <223> OTHER INFORMATION: motif in heptamiric region recognized by heat
149 shock protein
--> 151 <221> NAME/KEY: VARIANT
152 <222> LOCATION: 2
153 <223> OTHER INFORMATION: Xaa = Trp or any amino acid
--> 155 <221> VARIANT
156 <222> LOCATION: 1, 3, 5, 7
157 <223> OTHER INFORMATION: Xaa = hydrophobic amino acid residues
--> 159 <221> VARIANT
160 <222> LOCATION: 4, 6
161 <223> OTHER INFORMATION: Xaa = any amino acid
--> 163 <400> 7
--> 164 Xaa Xaa Xaa Xaa Xaa Xaa Xaa
165 1 5
168 <210> SEQ ID NO: 8
169 <211> LENGTH: 7
170 <212> TYPE: PRT
171 <213> ORGANISM: Unknown
173 <220> FEATURE:
174 <223> OTHER INFORMATION: motif in heptamiric region recognized by heat
175 shock protein
--> 177 <221> NAME/KEY: VARIANT
178 <222> LOCATION: 2
179 <223> OTHER INFORMATION: Xaa = Trp or any amino acid
--> 181 <221> VARIANT
182 <222> LOCATION: 1, 3, 5, 7,
183 <223> OTHER INFORMATION: Xaa = hydrophobic amino acid residue, particularly
184 tryptophan, leucine or phenylalanine
--> 186 <221> VARIANT
187 <222> LOCATION: 4, 6
188 <223> OTHER INFORMATION: Xaa = any amino acid
--> 190 <400> 8
--> 191 Xaa Xaa Xaa Xaa Xaa Xaa Xaa
192 1 5
195 <210> SEQ ID NO: 9
196 <211> LENGTH: 4
197 <212> TYPE: PRT
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:

```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/776,521

DATE: 11/23/2004
TIME: 12:44:41

Input Set : D:\SEQLIST (8449-405 as filed).TXT
Output Set: N:\CRF4\11222004\J776521.raw

201 <223> OTHER INFORMATION: mutated heat shock protei peptide

203 <400> SEQUENCE: 9

204 Lys Asp Glu Leu

205 1

208 <210> SEQ ID NO: 10

209 <211> LENGTH: 10

210 <212> TYPE: PRT

211 <213> ORGANISM: Virus

213 <400> SEQUENCE: 10

214 Ser Gly Pro Ser Asn Thr Pro Pro Glu Ile

215 1 5 10

218 <210> SEQ ID NO: 11

219 <211> LENGTH: 11

220 <212> TYPE: PRT

221 <213> ORGANISM: Virus

223 <400> SEQUENCE: 11

224 Ser Gly Val Glu Asn Pro Gly Gly Tyr Cys Leu

225 1 5 10

228 <210> SEQ ID NO: 12

229 <211> LENGTH: 10

230 <212> TYPE: PRT

231 <213> ORGANISM: Virus

233 <400> SEQUENCE: 12

234 Lys Ala Val Tyr Asn Phe Ala Thr Cys Gly

235 1 5 10

238 <210> SEQ ID NO: 13

239 <211> LENGTH: 9

240 <212> TYPE: PRT

241 <213> ORGANISM: Virus

243 <400> SEQUENCE: 13

244 Arg Pro Gln Ala Ser Gly Val Tyr Met

245 1 5

248 <210> SEQ ID NO: 14

249 <211> LENGTH: 9

250 <212> TYPE: PRT

251 <213> ORGANISM: Virus

253 <400> SEQUENCE: 14

254 Phe Gln Pro Gln Asn Gly Gln Phe Ile

255 1 5

258 <210> SEQ ID NO: 15

259 <211> LENGTH: 9

260 <212> TYPE: PRT

261 <213> ORGANISM: Virus

263 <400> SEQUENCE: 15

264 Ile Glu Gly Gly Trp Thr Gly Met Ile

265 1 5

268 <210> SEQ ID NO: 16

269 <211> LENGTH: 10

270 <212> TYPE: PRT

Which
Virus?

Invalid
Response

Which
Virus?

Invalid
Response

Same error

Same error

Same error

Same error

RAW SEQUENCE LISTING

DATE: 11/23/2004

PATENT APPLICATION: US/10/776,521

TIME: 12:44:41

Input Set : D:\SEQLIST (8449-405 as filed).TXT

Output Set: N:\CRF4\11222004\J776521.raw

271 <213> ORGANISM: Virus
 273 <400> SEQUENCE: 16
 274 Thr Tyr Val Ser Val Ser Thr Ser Thr Leu
 275 1 5 10
 278 <210> SEQ ID NO: 17
 279 <211> LENGTH: 8
 280 <212> TYPE: PRT
 281 <213> ORGANISM: Virus
 283 <400> SEQUENCE: 17
 284 Phe Glu Ala Asn Gly Asn Leu Ile
 285 1 5
 288 <210> SEQ ID NO: 18
 289 <211> LENGTH: 9
 290 <212> TYPE: PRT
 291 <213> ORGANISM: Virus
 293 <400> SEQUENCE: 18
 294 Ile Tyr Ser Thr Val Ala Ser Ser Leu
 295 1 5
 298 <210> SEQ ID NO: 19
 299 <211> LENGTH: 9
 300 <212> TYPE: PRT
 301 <213> ORGANISM: Virus
 303 <400> SEQUENCE: 19
 304 Thr Tyr Gln Arg Thr Arg Ala Leu Val
 305 1 5
 308 <210> SEQ ID NO: 20
 309 <211> LENGTH: 9
 310 <212> TYPE: PRT
 311 <213> ORGANISM: Virus
 313 <400> SEQUENCE: 20
 314 Cys Thr Glu Leu Lys Leu Ser Asp Tyr
 315 1 5
 318 <210> SEQ ID NO: 21
 319 <211> LENGTH: 8
 320 <212> TYPE: PRT
 321 <213> ORGANISM: Virus
 323 <400> SEQUENCE: 21
 324 Ser Asp Tyr Glu Gly Arg Leu Ile
 325 1 5
 328 <210> SEQ ID NO: 22
 329 <211> LENGTH: 9
 330 <212> TYPE: PRT
 331 <213> ORGANISM: Virus
 333 <400> SEQUENCE: 22
 334 Glu Glu Gly Ala Ile Val Gly Glu Ile
 335 1 5
 338 <210> SEQ ID NO: 23
 339 <211> LENGTH: 9
 340 <212> TYPE: PRT

*Same
errors*

The type of errors shown exist throughout
 the Sequence Listing. Please check subsequent
 sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 11/23/2004
PATENT APPLICATION: US/10/776,521 TIME: 12:44:42

Input Set : D:\SEQLIST (8449-405 as filed).TXT
Output Set: N:\CRF4\11222004\J776521.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. ~~1,2,3,4,5,6,7,8,9~~
Seq#:3; Xaa Pos. ~~1,2,3,4,5,6,7,8~~
Seq#:4; Xaa Pos. ~~1,2,3,4,5,6,7~~
Seq#:7; Xaa Pos. ~~2,2,2,4,5,6,7~~
Seq#:8; Xaa Pos. ~~1,2,3,4,5,6,7~~
Seq#:295; Xaa Pos. 7
Seq#:296; Xaa Pos. 3
Seq#:301; Xaa Pos. 2,6
Seq#:348; Xaa Pos. 5

VERIFICATION SUMMARY

DATE: 11/23/2004

PATENT APPLICATION: US/10/776,521

TIME: 12:44:42

Input Set : D:\SEQLIST (8449-405 as filed).TXT

Output Set: N:\CRF4\11222004\J776521.raw

..53 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
..57 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
..61 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
..65 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
..69 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
..70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
..82 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
..86 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
..90 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
..91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
..103 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
..107 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
..111 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
..112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
..151 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
..155 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
..159 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
..163 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
..164 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
..177 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
..181 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
..186 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
..190 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:8
..191 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
..3719 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
..3723 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:295
..3724 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:295 after pos.:0
..3737 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
..3741 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:296
..3742 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:296 after pos.:0
..3811 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
..3815 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:301
..3816 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:301 after pos.:0
..4473 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
..4477 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:348
..4478 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:348 after pos.:0